

the uppermost continuous deck and must have means for locking.

(b) Each feeder supplying a watertight door operating system must be above the uppermost continuous deck.

(c) Each watertight door operating system must have a separate branch circuit.

#### § 111.97-9 Overcurrent protection.

Overcurrent devices must be arranged to isolate a fault with as little disruption of the system as possible. The relationship between the load and the rating or setting of overcurrent devices must meet the following:

(a) The rating or setting of each feeder overcurrent device must be not less than 200 percent of its maximum load.

(b) The rating or setting of a branch circuit overcurrent device must be not more than 25 percent of that of the feeder overcurrent device.

### Subpart 111.99—Fire Door Holding and Release Systems

#### § 111.99-1 Applicability.

This subpart applies to fire door holding and release systems, if fitted.

[CGD 74-125A, 47 FR 15236, Apr. 8, 1982, as amended by CGD 94-108, 61 FR 28284, June 4, 1996]

#### § 111.99-3 Definitions.

As used in this subpart—

*Central control panel* means a manually-operated device on the navigating bridge or in the fire control room for releasing one or more fire doors.

*Fire door* means a door that is in a fire boundary, such as a stairway enclosure or main vertical zone bulkhead, that is not usually kept closed.

*Fire door holding magnet* means an electromagnet for holding a fire door open.

*Local control panel* means a manually-operated device next to a fire door for releasing the door so that the fire door self-closing mechanism may close the door.

[CGD 94-108, 61 FR 28284, June 4, 1996; 61 FR 33045, June 26, 1996]

#### § 111.99-5 General.

Fire door release systems, if installed, must meet SOLAS 74, regulation II-2/30.4.3.

[CGD 94-108, 61 FR 28284, June 4, 1996]

### Subpart 111.101—Submersible Motor-Driven Bilge Pumps

#### § 111.101-1 Applicability.

This subpart applies to each submersible motor-driven bilge pump required on certain vessels under § 56.50-55(a)(2)(i) of this chapter.

#### § 111.101-3 General requirements.

(a) Each electric motor driving a submersible bilge pump must be in an open end air bell of rugged construction and be of a size that does not allow water to enter the motor if the compartment that the motor is in is flooded to the uppermost continuous deck.

(b) The motor, if of the open type, must be protected from splashing water from the bottom.

(c) The cable to each motor must enter through the open bottom of the air bell.

(d) Each motor must be able to operate continuously at rated load under any condition, dry or with water in the air bell at any level up to the maximum allowed under paragraph (a) of this section.

(e) Each motor controller must be above the uppermost continuous deck. There must be a master switch at the controller and a master switch at the motor. The master switch at the motor must be disconnected from the circuit when the motor is started or stopped from the master switch at the controller.

(f) Each motor must be energized from the final emergency power source.

### Subpart 111.103—Remote Stopping Systems

#### § 111.103-1 Power ventilation systems except machinery space ventilation systems.

Each power ventilation system must have:

(a) A control to stop the ventilation that is:

(1) Outside the space ventilated; and

### § 111.103-3

(2) Grouped with the controls for every power ventilation system to which this section is applicable; and

(b) In addition to the control required by paragraph (a), a stop control that is:

(1) As far as practicable from the control required by paragraph (a) and grouped with the controls for every power ventilation system to which this section is applicable; or

(2) The circuit breakers for ventilation grouped on the main switchboard and marked, "In Case of Fire Trip to Stop Ventilation."

NOTE: The requirements of this section do not apply to closed ventilation systems for motors or generators, diffuser fans for refrigerated spaces, room circulating fans, or exhaust fans for private toilets of an electrical rating comparable to that of a room circulating fan.

### § 111.103-3 Machinery space ventilation.

(a) Each machinery space ventilation system must have two controls to stop the ventilation, one of which may be the supply circuit breaker.

(b) The controls required in paragraph (a) of this section must be grouped so that they are operable from two positions, one of which must be outside the machinery space.

### § 111.103-7 Ventilation stop stations.

Each ventilation stop station must:

(a) Be protected by an enclosure with a glass-paneled door on the front;

(b) Be marked, "In Case of Fire Break Glass and Operate Switch to Stop Ventilation;"

(c) Have the "stop" position of the switch clearly identified;

(d) Have a nameplate that identifies the system controlled; and

(e) Be arranged so that damage to the switch or cable automatically stops the equipment controlled.

### § 111.103-9 Machinery stop stations.

(a) Each forced draft fan, induced draft fan, blower of an inert gas system, fuel oil transfer pump, fuel oil unit, fuel oil service pump, and any other fuel oil pumps must have a stop control that is outside of the space containing the pump or fan.

(b) Each stop control must meet § 111.103-7.

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### Subpart 111.105—Hazardous Locations

#### § 111.105-1 Applicability.

This subpart applies to installations in hazardous locations as defined in the NEC and in IEC 79-0.

NOTE TO § 111.105-1: Chemicals and materials in addition to those listed in Table 500-2 of the NEC and IEC 79-12 are listed in subchapter O of this chapter.

[CGD 94-108, 61 FR 28284, June 4, 1996]

#### § 111.105-3 General requirements.

All electrical installations in hazardous locations must comply with the general requirements of section 43 of IEEE Std 45 and either the NEC articles 500-505 or IEC series 79 publications. When installations are made in accordance with the NEC articles, marine shipboard cable that complies with subpart 111.60 of this chapter may be used instead of rigid metal conduit, if installed fittings are approved for the specific hazardous location and the cable type.

[CGD 94-108, 61 FR 28284, June 4, 1996]

#### § 111.105-5 System integrity.

In order to maintain system integrity, each individual electrical installation in a hazardous location must comply specifically with NEC articles 500-505, as modified by § 111.105-3, or IEC series 79 publications, but not in combination in a manner that would compromise system integrity or safety. Hazardous location equipment must be approved as suitable for use in the specific hazardous atmosphere in which it is installed. The use of non-approved equipment is prohibited.

[CGD 94-108, 61 FR 28284, June 4, 1996]

#### § 111.105-7 Approved equipment.

When this subpart or the NEC states that an item of electrical equipment must be approved or when IEC 79-0 states that an item of electrical equipment must be tested or approved in order to comply with IEC 79 series publications, that item must be—

(a) Listed or certified by an independent laboratory as approved for use in the hazardous locations in which it is installed; or